United States
Department of

Readings in the

Introduction

The articles in this volume relate in one way or another to the history of the Soil Conservation Service. Collectively, the articles do not constitute a comprehensive history of SCS, but do give some sense of the breadth and diversity of SCS's missions and operations. They range from articles published in scholarly journals to items such as "Soil Conservation: A Historical Note," which has been distributed internally as a means of briefly explaining the administrative and legislative history of SCS. To answer reference requests I have made reprints of the published articles and periodically made copies of some of the unpublished items. Having the materials together in a volume is a very convenient way to satisfy these requests in a timely manner. Also, since some of these articles were distributed to SCS field offices, many new employees have joined the Service. I wanted to take the opportunity to reach them. SCS employees are the main audience.

We have produced this volume in the rather unadorned and inexpensive manner so that we can distribute the volume widely and have it available for training sessions and other purposes. Also we can readily add articles in the future.

If anyone should wish to quote or cite any of the published articles, please use the citations provided at the beginning of the article. For other articles please cite this publication.

Steven Phillips, a graduate student in history at Georgetown University and a 1992 summer intern here with SCS, converted the articles to this uniform format, and is hereby thanked for his very professional efforts. Jim Todd of Electronic Scanning and Design created the cover.

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Table of Contents

Eroding the Color Line:
The Soil Conservation Service and

Two Centuries of Soil Conservation

Reprinted from *OAH Magazine of History* (Winter 1991): 24-28.

by Douglas Helms

build terraces or channels that ran around the hill to intercept and carry off water. Nicholas Sorsby combined horizontal farming with the early precursor of the terrace--the hillside ditch--and greatly popularized "level culture" throughout the South.[5] After the Civil War, Priestly Mangum of Wake Forest, North Carolina, perfected the broadbased Mangum terraces.[6]

Edmund Ruffin of Virginia developed the most elaborate system of what today might be called sustainable agriculture. He used a mixture of decaying sea-shells and clay--

Menace (1928), that was a call to action.[8] Other more popular articles reached a wider, and potentially influential, audience. He published articles in *Nature Magazine*, *North American Review*, *Holland's*, *Geographic Review*, *Country Gentleman*, *American Forests and Forest Life*, and *Farm Journal.*

Finally, Bennett was ready to work on pushing his ideas legislatively and administratively. He maneuvered to gain support for a group of research stations that would develop methods of conserving soil. The

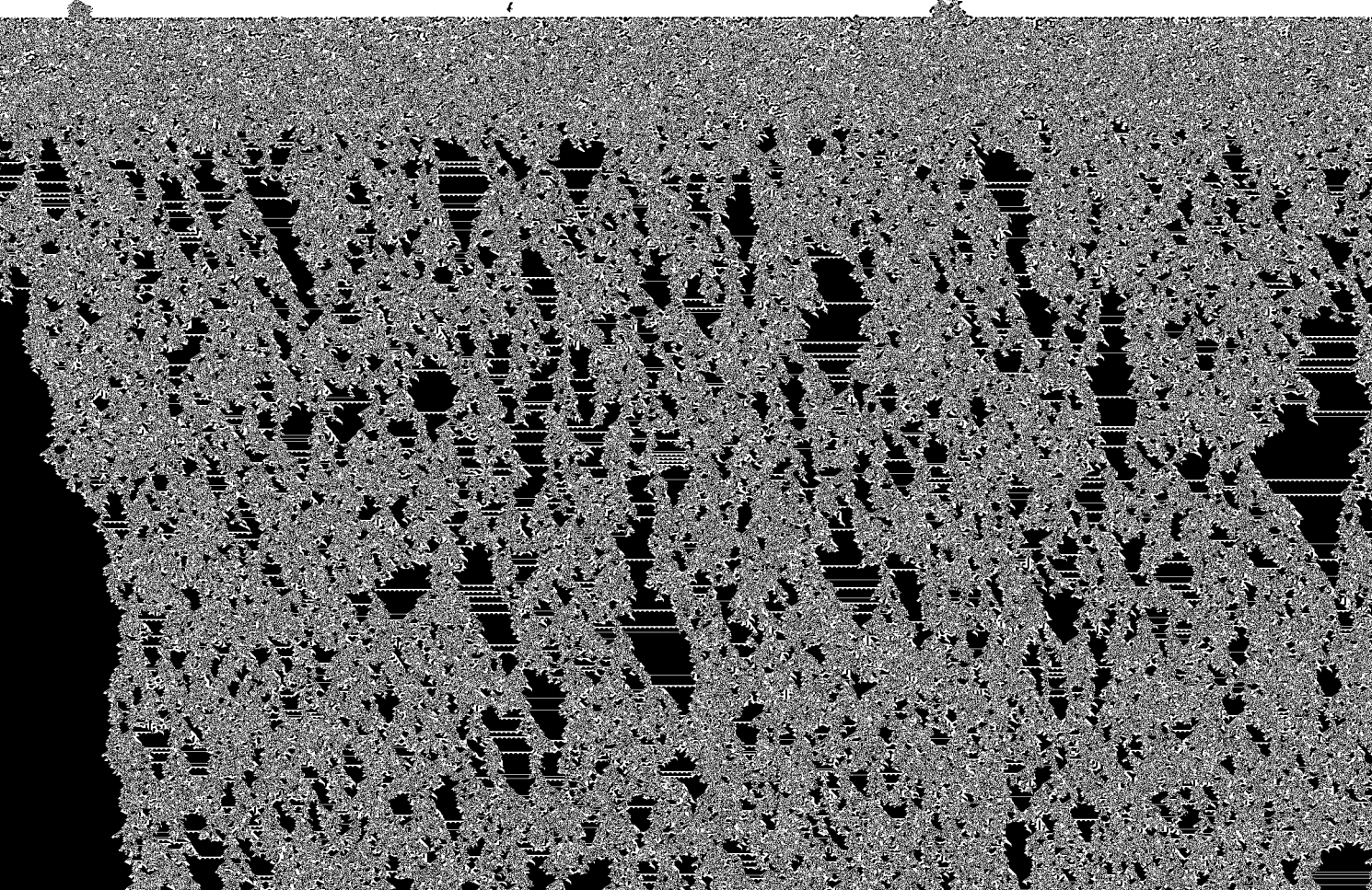
small grains in their operation, strip-cropping under crop rotations was emphasized. To encourage a greater use of grass in the farming operation, the projects introduced the concept of pasture management relying in part on fertilizer. In hilly areas, fencing off woodland from grazing benefitted the cropland below by reducing runoff.

The CCC also collected seed for nursery production of seedlings to reforest areas and carried out thinning and timber stand improvement. Likewise, collecting native grass seed for revegetating rangeland played a large part in demonstration projects in semi-arid areas. Contour furrows and water-spreading systems were introduced to increase infiltration. Springs were developed and stock-watering ponds were sited to distribute grazing. Grass cover for orchards was encouraged. In Pacific orchards, the young conservationists emphasized contour furrows to spread irrigation water rather than letting it run downhill.[9]

The Soil Conservation Act of 27 April 1935 transformed the soil conservation work from a temporary status to a permanent volved in planning and carrying out of the work.

Wilson conceived of a conservation district, a governmental subdivision of the state, that the local people would organize for the district. The directors or supervisors of the district would be elected or appointed and would direct the activities concerning soil and water conservation within the district. The federal government could supply equipment and technical assistance through trained soil conservation personnel. Henry A. Wallace and President Franklin D. Roosevelt endorsed the proposal, and FDR transmitted the Standard State Soil Conservation Districts Law to governors of the states on 27 February 1937, with the recommendation that the state legislatures enact a law based upon it. Arkansas passed the first such act on 3 March 1937. The Brown Creek Soil Conservation District in North Carolina signed the first agreement with the U. S. Department of Agriculture on 4 August 1937.

Since then, nearly 3,000 conservation districts have been organized. The Soil Con-



transformation that is now so complete it beckons tourists to gaze at the luxuriant colors in the fall.[12]

increases water infiltration and reduces runoff that causes erosion. In crop rotations this improves or maintains soil tilth, which

II. Occasionally, the bounty caused some analysts to question whether we need even be concerned about topsoil. Any medium, given enough amendments of fertilizers, should suffice for food production, they [illegible]

10 Jonathan Daniels, *Tar Heels: A Portrait of North Carolina* (New York: Dodd, Mead & Company, 1941), 188.

11 R. Neil Sampson, *For Love of the Land:*

The Soil Conservation Service: A Historical Note

by Douglas Helms,
National Historian, Soil Conservation Service

An earlier version of this article was published as "SCS: 50 Years Young" in *The Farmer* (St. Paul, Minnesota) March 16, 1985. pp. 48-50.

This unnecessary wastage of soil concerns you--and me...Neither as individuals nor collectively can we deny our responsibility...If you will take the trouble to ascertain the facts about our farmland--and other natural resources--and then lend your support to our conservation programs we will get results and hold on to them.

Hugh Hammond Bennett
from *The Hugn Bennett Lectures*

The Soil Conservation Act (Public Law 46-74) of April 27, 1935, specifically directed the Secretary of Agriculture to "establish an agency known as the Soil Conservation Service," which would "provide permanently for the control and prevention of soil erosion."

Some Americans were concerned about soil erosion in the 19th century and even earlier. Southerners, for example, developed an indigenous system of terracing. Some state experiment stations worked on solutions. The Extension Service instructed farmers in terracing methods in some states. Two U.S. Department of Agriculture scientists, Hugh H. Bennett and William R. Chapline, published an influential pamphlet, *Soil Erosion: A National Menace*, in 1928. Congress authorized a series of experiment stations devoted to soil conservation research in 1929. In Texas, beginning in 1929, the Southwest Soil and Water Conservation Conference called attention to the problem.

Despite these early efforts, soil erosion was hardly a matter of national concern and united efforts until the onset of the Great Depression caused a questioning of numerous aspects of American life. The connection between poor, eroded land and poor people came into focus. New programs, the Civilian Conservation Corps great deal of support. The National Industrial Recovery Act of June 16, 1933, permitted work on erosion control. Secretary of the Interior Harold L. Ickes selected Hugh H. Bennett to head the new Soil Erosion Service in September 1933. Bennett, a USDA soil scientist, had called attention to the problem through articles and speeches.

Bennett located erosion control work in watersheds near the erosion experiment stations so that the heads of the stations could utilize the research information. Farmers in the watersheds could sign five-year cooperative agreements to install conservation measures. The Soil Erosion Service furnished equipment, seed, seedlings, assistance in planning the measures and labor through the CCC or WPA. Many of the conservation practices were not new, but the new service planned to utilize numerous methods in a mutually supportive conservation system tailored to the individual farm. Contour farming was strongly emphasized. Many farmers used contour terraces but needed to be introduced to grassed outlets, grassed waterways, and grade stabilization structures. Where farmers included hay and small grains in their operations, strip-cropping under longer rotation was emphasized. To encourage a greater use of grass in the farming operation, the projects introduced

The CCC boys also collected seeds for nursery production of seedlings to reforest the areas, as well as carrying out thinning and timberstand improvement. Likewise,

sion control. The Secretary of Agriculture transferred the ten experiment stations from the Bureau of Chemistry and Soils and the Bureau of Agricultural Engineering to SCS,

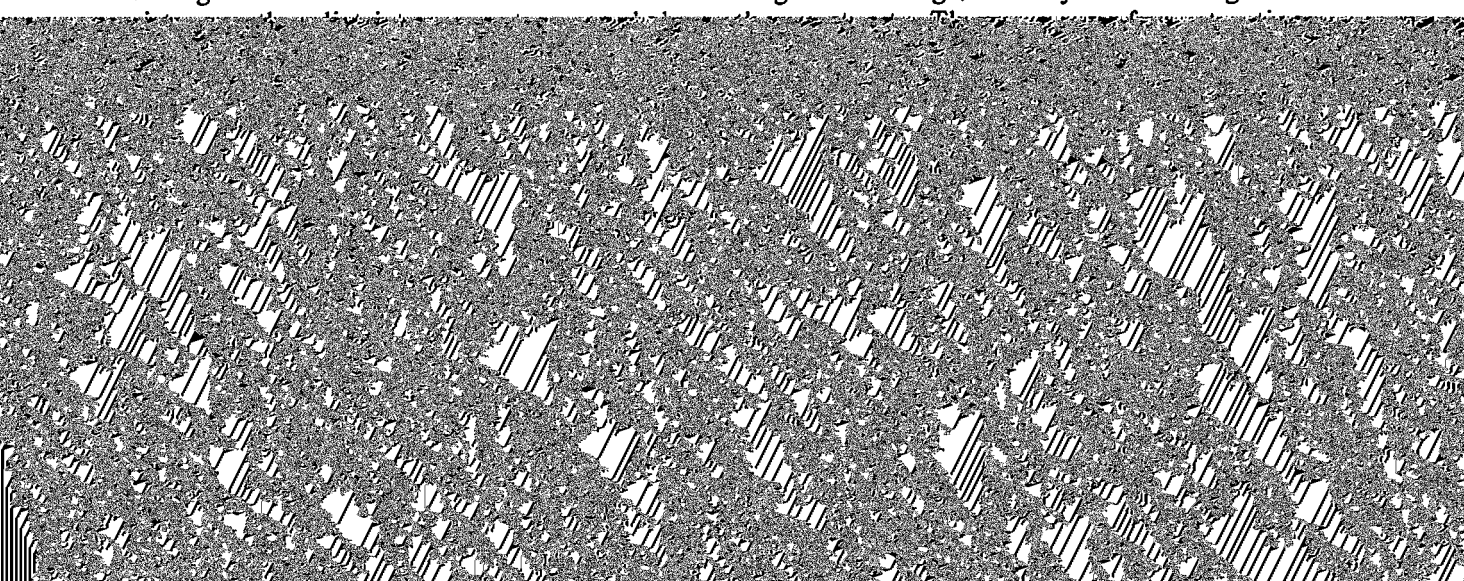
located in the CCC and demonstration work areas. Farmers who visited the areas often left desiring similar assistance.

The mechanism for providing for a continuing program was the conservation district, largely credited to M. L. Wilson, Under Secretary of Agriculture. Wilson's brand of agrarian democracy included government assistance to farmers, but also provided for local direction of much of the assistance. His thoughts on the means to involve farmers in the conservation program were embodied in the "Standard State Soil Conservation Districts Law" which President Roosevelt sent to the states' governors on February 27, 1937. If the state legislatures and governors enacted a law which included the basic elements of the standard act then local groups could organize conservation districts. Then the Department of Agriculture would provide assistance, primarily trained personnel, while the districts set the priorities and directed the work.

Arkansas passed the first state act on March 3, 1937, and the Brown Creek Soil Conservation District, which included Bennett's homeplace, signed the first agreement with USDA on August 4, 1937. The conservation district was a novel concept in the federal, state, and local relationship, and it required a great deal of explanation and education. Some states questioned the wisdom of the land-use ordinances in the standard act. Some farm organizations, agricultural agencies, and universities regarded the conservation districts as an unnecessary intrusion into already well-established means of working with farmers. Even in the face of

derstanding that conservation concerned not only the individual farm but also the community. An understanding of the need to control floods on upper reaches of streams and the need to link conservation measures on the farm to flood control structures for the benefit of the entire watershed was hardly new, having been promoted in the publications *Little Waters* in 1936 and *Headwaters Control and Use* in 1937. The Flood Control Act of 1944 had authorized 11 watersheds for accelerated conservation application. The two programs emphasized a combination of dams for flood control and soil conservation systems on farms in the watershed above the structure. The Small Watershed Program provided assistance--financial and technical--to local groups for watershed improvement and flood control. By 1984, work had been completed on 602 watersheds, while work continues on another 462 watersheds. Since 1982, the Small Watershed Program has increased the proportion of funds devoted to cost-share farm conservation measures and decreased emphasis on building structures for flood control.

The 1956 Great Plains Conservation Program (GPCP), born out of the 1950s drought, gave renewed emphasis to the need to plan conservation for an entire farm or ranch. The program provided a new type of assistance through a ten-year contract. USDA shared the cost of conservation measures, while the farmer agreed to treat the entire farm and to maintain the conservation measures for the period of the contract. The objective, however, was a long-term change, far beyond the length of



of innovative projects under their sponsorship. At present 194 areas have organized local councils.

The new programs of the 1950s and 1960s relied on the use of soils information. The merger of the National Soil Survey into SCS in 1952 linked scientific knowledge of soil characteristics to field observations of soil behavior under various uses. The result, in the 1960s and 1970s, was an expansion of interpretations of soil survey information for agricultural and nonagricultural uses. Suburban growth, increased nonfarm rural population, small town and industrial growth created environmental problems and a demand for local, county, and even regional planning assistance as exemplified in the Soil, Water, and Suburbia Conference on 1967. SCS became involved in many [illegible]

pluses being depleted, the 1974 prices of corn and soybeans were more than double those of 1970 and wheat prices trebled. Farmers harvested 24 million acres more in 1974 than in 1972. Sixty million acres of new cropland were cultivated between 1972 and 1982--much of it more erodible than the cropland already in production. The increased erosion problem rekindled an interest in conservation among people outside the traditional conservation action groups. In some ways the last decade has been reminiscent of earlier days of the conservation movement when the interest in conservation was shared by many people not directly involved in farming.

The renewed interest in soil conservation led to the 1977 Soil and Water Resources Conservation Act and to intensified study [illegible]

conservation plan on highly erodible land and until 1995 to fully install the conservation plan. Under sodbuster, landowners must apply a conservation plan if they wish to bring land into production that had not been used for an annual crop between December 31, 1980 and December 23, 1985. The swampbuster provision, officially titled wetland conservation, was an attempt to slow drainage of wetlands and their conversion to cropland. Farmers who converted wetlands and produced agricultural commodities after December 23, 1985, the date of the passage of the act, would be ineligible for USDA program benefits. Under another provision, the Conservation Reserve Program, farmers are putting highly erodible land into grass, trees, or other cover under long-term contracts.

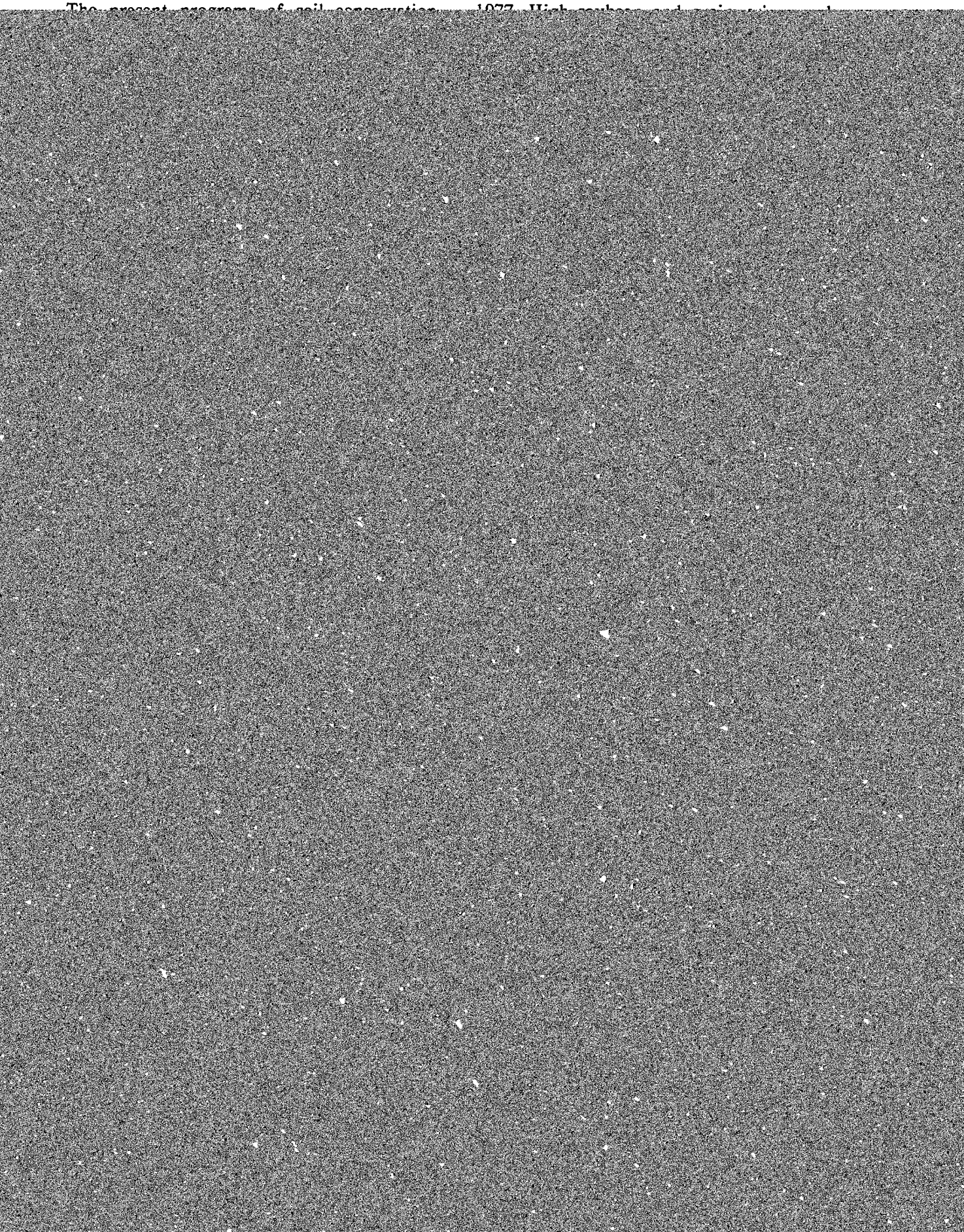
Beginning in 1988, SCS became increasingly involved in a government-wide Presidential effort to improve and enhance water quality. SCS's part has been to develop means to reduce agriculture's adverse impacts on water quality and to assess the effectiveness of voluntary programs.

For over half a century, research in conservation spread from the work of a few interested individuals to a federal network of research stations, increased emphasis at the state experiment stations, and a realization by industry that farmers want, need, and will purchase equipment designed to conserve land while farming it. The information generated by research must be applied to land by the farmer working cooperatively with a professional well versed in the sciences--the soil conservationist.

Soil and Soil Conservation

Reprinted from Wilson, Charles Reagan, and William Ferris, eds. *Encyclopedia of Southern Culture.* Chapel Hill, N.C.: The University of North Carolina Press, 1989. pp. 361-363.

by Douglas Helms,



scattered tracts of farm land, the time saved is a major inducement.

Southern farmers continue to cite soil erosion as their major resource problem. Twenty-two million of the 54 million cropland acres erode at a rate greater than soil formulation. The fertile, heavily farmed, loessial bluffs erode at four times that rate. But the 32 million acres of cropland on which soil erosion is negligible represent an evolution from an extractive, pioneering ethos to a permanent agriculture.

Table I

Conditions of Southern Soil Erosion, 1934

Erosion condition	Acres	Percentage of total
Total area exclusive of large cities and water)	300,967,150	100
Area with little or no erosion	147,256,748	48.9
Total area affected by sheet erosion	130,226,130	43.3
One-fourth to three-fourths of topsoil lost	94,415,128	31.4
Over three-fourths of topsoil lost	35,801,001	11.9
Total area affected by gullying	127,880,121	42.5
Occasional gullies	110,527,582	36.7
Severe gullies	16,073,713	5.3
Destroyed by gullies	1,548,826	.5

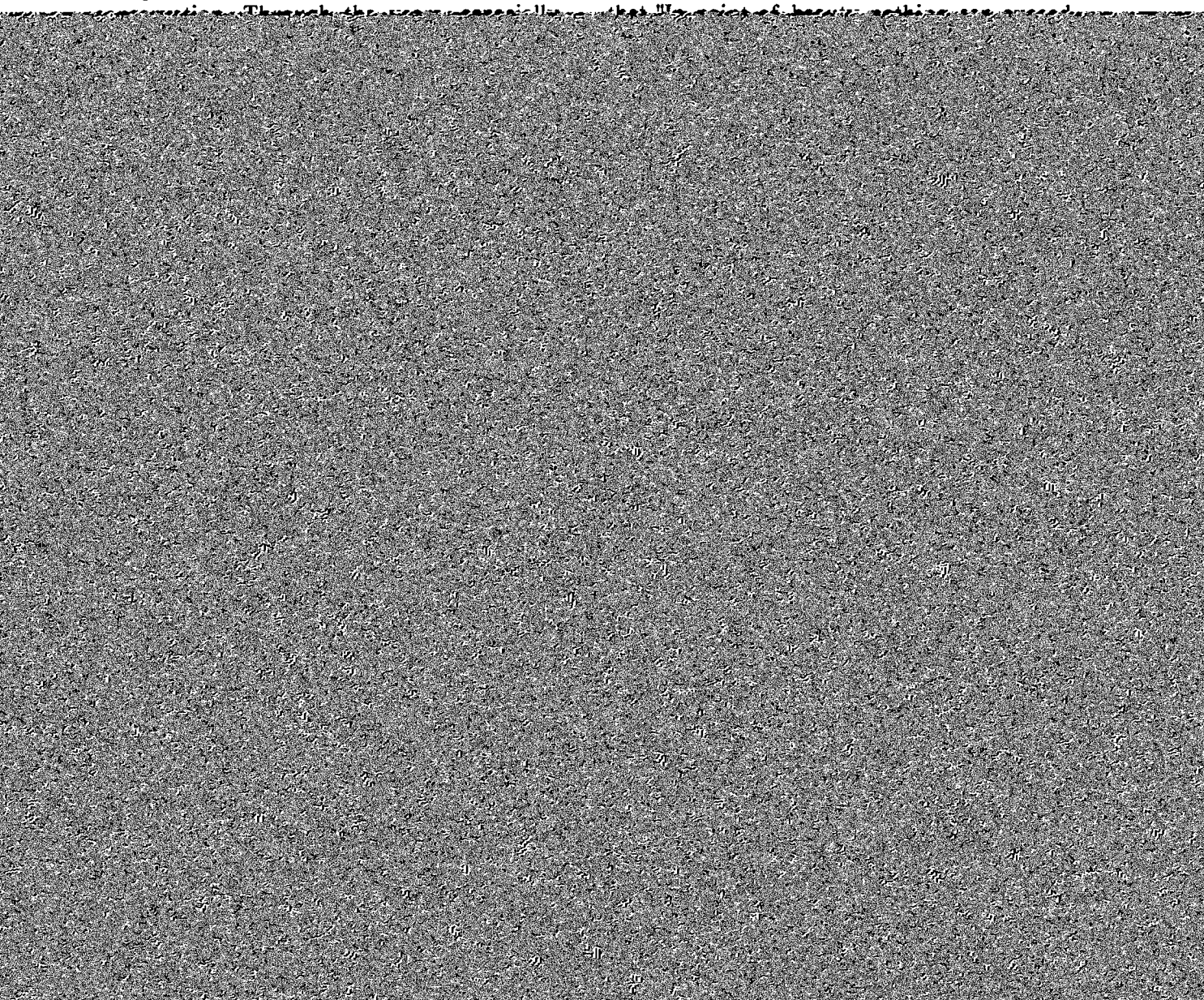
Source: Natural Resources Board, *Soil Erosion: A Critical Problem in American Agriculture* (1935).

Further Reading: Arthur R. Hall, "Soil Erosion and Agriculture in the Southern Piedmont" (Ph.D. dissertation, Duke University, 1948); John Hebron Moore, *Agriculture in Ante-Bellum Mississippi* (1958); Arthur F. Raper, *Preface to Peasantry: A Tale of Two Black Belt Counties* (1936); *Soil Erosion: A Critical Problem in American Agriculture* (1935); U.S. Department of Agriculture, Soil Conservation Service, *Early American Soil Conservationists*, Misc. Pub. 449 (1941), *Soil, Water and Related Resources in the United States: Part I* (1981); Rupert B. Vance, *Human Geography of the South* (1932); Frank B. Vinson, "Conservation and the South" (Ph.D. dissertation, University of Georgia, 1971).

Soil: How We Have Tried to Conserve It

by Douglas Helms
National Historian, Soil Conservation Service

Recognition that Americans should conserve soil to maintain the Nation's capacity to produce food is neither a new, nor an outdated idea. Colonial Americans became aware of the exhaustible, erodible qualities of the new land. Today, even in the face of scientific and technological advances that have dramatically raised per-acre production and cast doubt on the profitability of some soil-conserving farming practices, none, save the most optimistic, believe soil conservation has become irrelevant. There has been, however, much less unanimity of thought on the best means to achieve soil



slopes. Even so, much of the cropland had some erosion hazards. Some of the earliest conservationists, such as Jared Eliot, Samuel Deane, and John Taylor, relied on observations and personal experience in advocating various systems of pasture, legumes, and crop rotations to increase fertility and lessen erosion by maintaining ground cover and improving soil tilth. Though he invented neither, Thomas Mann Randolph, Thomas Jefferson's son-in-law quickly perceived the advantages of the hillside plow and horizontal, or contour, plowing. As a convert to the idea, Jefferson believed

may best be remembered for his emotional appeals, but it should also be remembered that he first called for research. Knowledge should come before action. Largely at his prodding, the USDA appropriation act for 1929 included provisions for soil erosion and moisture conservation research stations. Bennett's first assistant at the Soil Conservation Service, Walter Lowdermilk, had made some of the seminal discoveries in the relationship of forest litter to runoff. Through the years soil conservation assumed a higher place on the state experiment station agendas. Individuals such as Edward Faulkner, author of *Plowman's Folly*, made contributions as did chemical and implement companies. The prospect of cost efficient and effective methods of conservation still occupies a major place on the agricultural research agenda.

Education

Those who would presume to advise farmers to change farming methods face a basic reality. In a country and a time when the number of farmers has declined, the potential convert has persisted. Often several generations have farmed the same land. Any suggestions for drastic change require persuasion and demonstration.

Edmund Ruffin, the apostle of marl (lime), eventually had considerable impact on American agriculture. But during his lifetime, he had little influence outside his Virginia Tidewater homeland. Terracing gained a foothold in the South, but the frontier of new land burdened any call for conservation that involved labor and capital intensive methods.

When Hugh Hammond Bennett, a soil scientist in the USDA, began his crusade for soil conservation, he proposed to use demonstration methods so that farmers would observe proven methods of soil conservation, then go forth and do likewise. He located the earliest demonstration projects near the erosion and moisture conservation experiment stations, where the results of the research could be put to use.

The Soil Conservation Act of 1935 made possible a continuing commitment to soil conservation and an expanded effort. At first the newly designated Soil Conservation Service added additional demonstration projects. But Milburn L. Wilson, then Assistant Secretary of Agriculture, had a plan for making conservation expertise more readily available for farmers. His plan, the soil conservation district, also provided for more local participation in planning operations and in so doing secured political support from farmers who would be critical to the continuation of the soil conservation activities. On February 27, 1937, President Franklin D. Roosevelt, transmitted to the governors the "Standard State Conservation Districts Law." After each state passed an enabling law, local areas, based on a watershed, or later on county boundaries, organized districts and elected supervisors. The districts then signed agreements with USDA. Through the years, the primary form of assistance from USDA to the nearly 3,000 conservation districts has been supplying trained soil conservationists to the districts to work directly with farmers. The districts or states can also supply additional personnel. The districts provide training and information, including buying and renting out equipment. In addition to the active state programs to expand staffs in Pennsylvania, Minnesota, Illinois, Iowa, and Missouri, some states such as Nebraska have increased the responsibilities and powers of the districts to include practically all resource concerns.

Sharing the Costs

Expenditures on soil conservation, at all levels of government, are premised on the idea that society has an interest in preventing erosion. Providing part of the cost is viewed not only as a matter of equity, but also as a means of achieving society's goal by inducing farmers to practice conservation. In early demonstration projects, SCS provided labor--Civilian Conservation Crops enrollees or Work Projects Administration laborers--seed, seedlings, lime, and fertilizer to help make useful adjustments such as establishing pastures, vegetating gullied areas, or working close growing hay crops into crop rotations, building terraces, and fencing, and improving woodland.

Sharing the cost of conservation became a major part of agricultural programs with the passage of the Soil Conservation and Domestic Allotment Act in 1936. As part of a plan to reduce surplus crop production by reducing acreage, participating farmers

wetlands that sustained the annual migrations. The concern over water quality, and part played by agricultural led to the Experimental Rural Clean Waters Program. This small pilot program used contracts with farmers to examine or demonstrate the relationship of soil and water conservation

livestock, irrigation water and fish on nearly 21,000,000 acres. Congress did not limit the Soil Bank to erodible land, but the program won greatest acceptance in the Southeast and Great Plains where susceptibility of erosion often coincided with low productivity or risky agriculture.

The current cropland reduction effort, the Conservation Reserve Program authorized in the 1985 farm bill, limited the program to "highly erodible" land. Crop surpluses again gave impetus to paying farmers to convert cropland to other uses. But other forces caused eligibility to be limited to erosion-prone land. Understanding of the erosion processes has increased, enabling conservationists to estimate sensitivity to erosion damage, and progress in making soil surveys made it possible to identify highly erodible land. Secondly, a coalition of environmental groups influenced Congress to restrict the conservation reserve to the most erodible land. In addition to their long-standing emphasis on wetlands, wildlife interests focused on cropland conversion as a means of increasing the variety and distribution of upland wildlife.

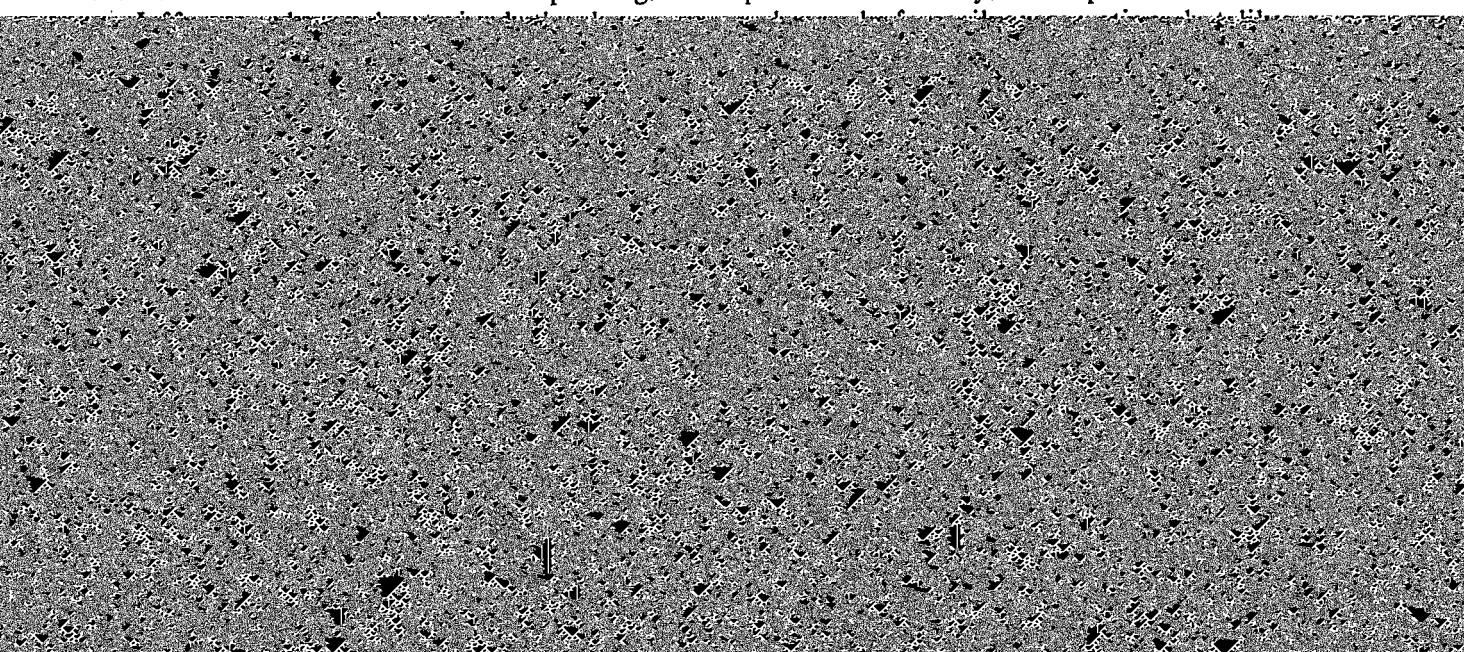
Profitability

The profitability of conserving topsoil appeared to be a much simpler question before the benefits of scientific agriculture became available. The ever-increasing effectiveness and use of fertilizers especially clouded the perception that expenditures for conservation would be repaid in the farmer's life-time. Horizontal plowing, the contributions of science and technology became available, the ratios of cost of production shifted dramatically. The amount of labor and land needed to produce a given amount decreased, as the machinery, seed, fertilizer, and pesticide components in crop production increased. Improved seed varieties and powerful fertilizers raised productivity and called into question the need for soil conservation measures. Amidst this trend, conservation tillage offered savings to farmers. Because of the objective of leaving crop residues on the surface, farmers forego the cost of several rounds of seedbed preparation and weed-killing cultivation.

Costs of erosion are not limited to the lost productivity; there are costs away from the field, or off-site, that should be counted. Sedimentation specialists in the 1930s studied filtration reservoirs in order to understand erosional processes; their studies also illuminated the off-site costs. Currently, there is much interest in measuring these off-site costs throughout the system from detachment to deposition.

Stewardship

According to some sources, Patrick Henry proclaimed shortly after the American Revolution, "since the achievement of our independence, he is the greatest patriot who stops the most gullies." The sentiment that conservation should be viewed not only as a matter of self-interest, but as an obligation, had, and continues to have many forms of expression. Certainly, a dispassionate case



Bennett's contemporary, Aldo Leopold, pioneer in wildlife management in the Forest Service, influenced the wildlife programs of early SCS demonstration projects but is best remembered for his writings that called upon us to maintain a "land ethic."

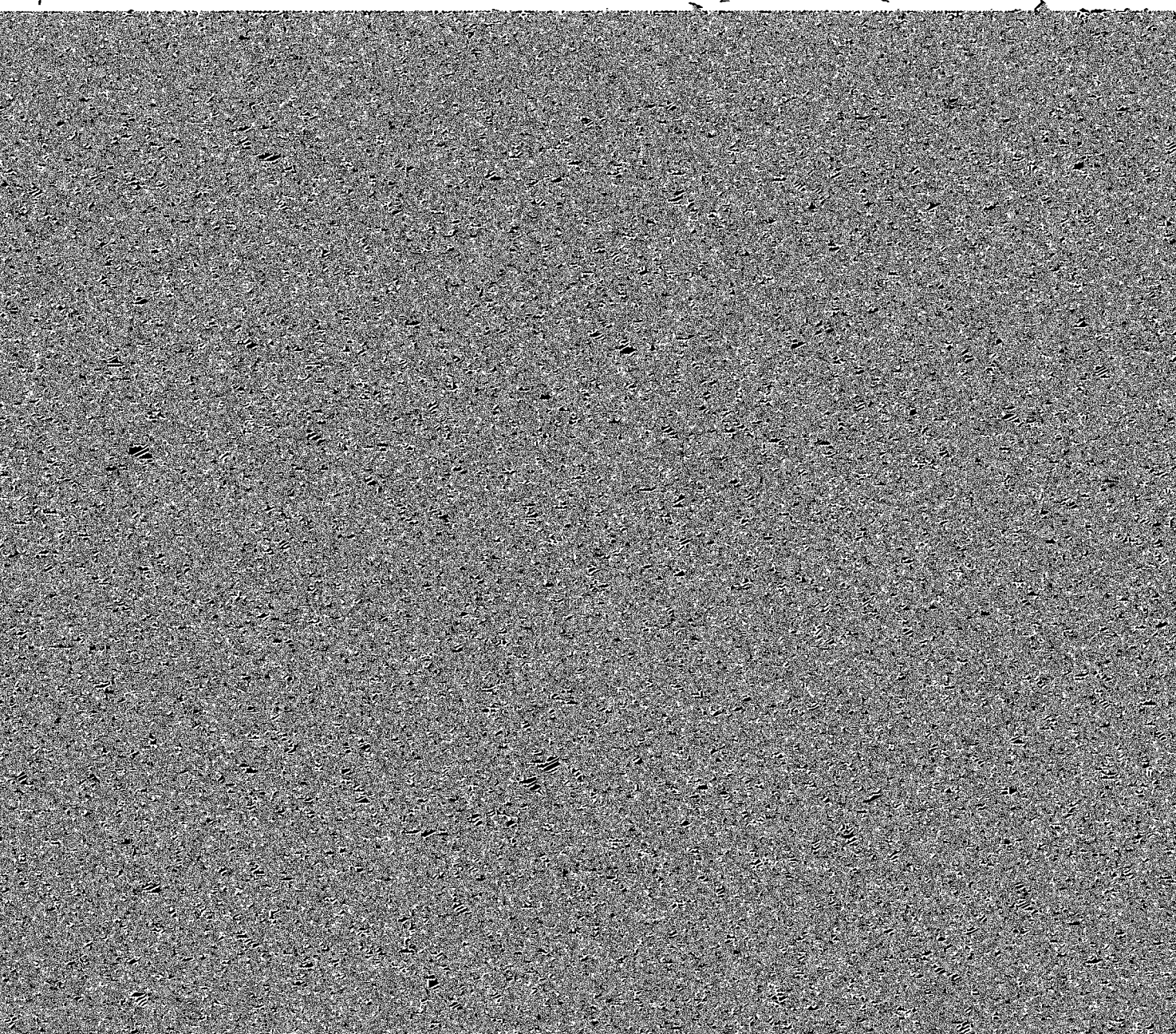
Soil conservation as a religious duty found expression in "Soil Stewardship Week." *Farm and Ranch* magazine sponsored a "Soil and Soul Sunday" from 1946 until 1954. The National Association of Conservation Districts assumed responsibility in 1955 and elicits support from many denominations.

Problem Areas

Let it not be said that Americans have not studied the location of problem areas. As

Conservation and the Law

The Federal government has generally left any question of land-use ordinances to states. The standard state conservation districts law included provisions for land-use regulations governing use of lands within the district in the interest of conserving soil and controlling erosion. Districts have most often used the provisions where the actions of an individual affected the community, especially in the Great Plains. Adjoining land owners often bore the cost of dealing with dirt from wind erosion-prone lands that should have been left in grass. Not surprisingly agitation for the conservation compliance provisions of the 1985 farm bill came from areas subject to wind erosion in the Great Plains. The provisions deny



Soil Conservation Is an Old-Time Religion

Reprinted from *Our American Land: 1987 Yearbook of Agriculture.* Washington, D.C.: U.S. Department of Agriculture, 1987. pp. 175-180.

by Douglas Helms,
National Historian, Soil Conservation Service

The idea that Americans should conserve soil to maintain the Nation's capacity to produce food is neither new nor outdated. Some colonial Americans knew the dangers of exhausting the land and undertook conservation measures even then. Some of the earliest conservationists increased fertility and lessened erosion by maintaining ground cover, improving soil tilth, and instituting pasture, legume, and crop rotation systems.

Though he invented neither, Thomas Mann Randolph, Thomas Jefferson's son-in-law, quickly perceived the advantages of the hillside plow and horizontal, or contour, plowing. As a convert to the idea, Jefferson believed that "In point of beauty nothing can exceed that of the waving lines and rows winding along the face of the hills and valleys."

Nicholas Sorsby combined horizontal farming with the early progenitor of the terrace--the hillside ditch-and greatly popularized "level culture" throughout the South.

The most outstanding of the pre-Civil War agricultural reformers, Edmund Ruffin, experimented to learn the effects of green manures and liming on soil conservation and soil fertility. After the Civil War, Priestly Mangum of Wake Forest, North Carolina, perfected the broadbased Mangum terrace for managing surface runoff.

Few agriculturalists viewed soil conservation as vital in the public agricultural institutions created in the latter half of the 19th century. These were the U.S. Department of Agriculture (USDA), the land-grant colleges, and the State agricultural experiment stations. USDA and the State experiment stations and Extension Service did publish bulletins on the subject. Eventually, two State experiment stations, those at Columbia, Missouri and Spur, Texas, concentrated on soil erosion.

Hugh Hammond Bennett, who led the soil conservation movement in the 20th century, first called for research. largely at his prodding, the USDA appropriation act for 1929 included provisions for soil erosion and moisture conservation research stations. Bennett's first assistant at the Soil Erosion Service, Walter Lowdermilk, made seminal discoveries in the relationship of forest litter to runoff.

Education

When Hugh Hammond Bennett began his crusade for soil conservation as a soil scientist in the USDA, he proposed to use demonstration methods so that farmers would observe proven methods of soil conservation, then go forth and do likewise. He located the earliest demonstration projects near the erosion and moisture conservation experiment stations, where the results of the research could be put to use.

The Soil Conservation Act of 1935 enabled Assistant Secretary of Agriculture Milburn L. Wilson to make conservation expertise more readily available to farmers through soil conservation districts. This provided for local participation in planning operations and attracted political support from farmers. On February 27, 1937, President Franklin D. Roosevelt transmitted the "Standard State Conservation District Law" to the governors. Each State then enabled local people to organize districts and elect supervisors. The district then signed agreements with USDA.

Trained USDA soil conservationists work directly with farmers in the nearly 3,000

conservation districts. The districts or States sometimes provide additional personnel.

Sharing the Costs

Sharing the cost of conservation became a major part of agricultural programs with the passage of the Soil Conservation and Domestic Allotment Act in 1936. Spending public money on soil conservation is premised on society's having an interest in preventing erosion. It is viewed not only as a matter of equity, but also as an inducement for farmers to practice conservation. In early demonstration projects, SCS provided Civilian Conservation Corps enrollees or Work Projects Administration laborers. Additionally, SCS provided seed, seedlings, lime, and fertilizer to help farmers to establish pastures, restore gullied areas, and work hay crops into crop rotations, and helped to build terraces and fencing, and improve woodland.

Land Use Conversion Programs

Converting very erodible cropland to forests or grasslands has had a great appeal to people concerned about soil erosion. Frequently called "land retirement" programs, these programs generally had as a goal not retirement, but conversion of land to another use. Congress and USDA often had objectives in addition to soil conservation when instituting such programs.

The current cropland reduction effort, the Conservation Reserve Program authorized by the 1985 farm bill, limits the program to "highly erodible" land. Crop surpluses again gave impetus to paying farmers to convert cropland to other uses. But other forces caused eligibility to be limited to erosion-prone land. Understanding of the erosion processes has increased, enabling conservationists to estimate sensitivity to erosion damage, and progress in making soil surveys made it possible to identify highly

Profitability

The profitability of conserving topsoil appeared to be a much simpler question before benefits of scientific agriculture became available. Effective use of fertilizers clouds the perception that expenditures for conservation will be captured in the farmer's lifetime.

Costs of erosion are not limited to the lost productivity; costs away from the field, or offsite, also should be counted. Sedimentation specialists in the 1930s studied siltation reservoirs in order to understand erosional processes; their studies also illuminated the offsite costs.

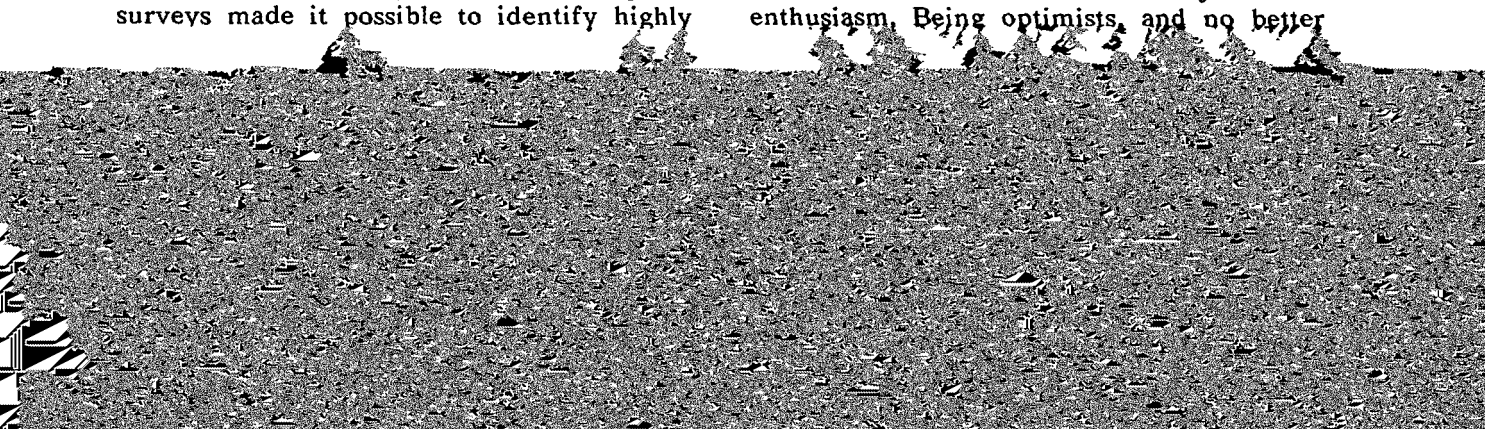
Stewardship

According to some sources, Patrick Henry proclaimed shortly after the American Revolution, "since the achievement of our independence, he is the greatest patriot who stops the most gullies." The sentiment that conservation should be viewed not only as a matter of self-interest, but as an obligation, had, and continues to have many forms of expression. Certainly, a dispassionate case can be made for soil conservation, but like many another movement that came to be enacted into a national program by Congress, it involved emotions.

Soil conservation as a religious duty found expression in "Soil Stewardship Week." *Farm and Ranch* magazine sponsored a "Soil and Soul Sunday" from 1946 until 1954. The National Association of Conservation Districts assumed responsibility in 1955 and elicits support from many denominations.

An Enduring Agriculture

When a national soil conservation program began in the 1930s, the young group of conservationists attacked their job with enthusiasm. Being optimists, and no better



the physical integrity of the soil resource, must be maintained.

How SCS Came to Be

Reprinted from *Soil and Water Conservation News* 6, no. 1 (April 1985): 3-4.

by Douglas Helms,
National Historian, Soil Conservation Service

Those brief, exciting, often hectic 20 months between September 19, 1933, when Hugh Hammond Bennett became Director of the Soil Erosion Service (SES), and April 27, 1935, when the Soil Conservation Act was passed, were important times for the future course of the conservation movement. That there would be national legislation to provide for a continued commitment to soil conservation was by no means assured. Current friends of the conservation movement can look to that period with a sense of admiration; not with a feeling that no mistakes were made, but with an appreciation for the early leaders who trans-

that ensured its demise after the Depression. Through the years of reading, corresponding, and conversing with the handful of people active in soil conservation, Bennett knew to whom he would entrust the field work--the work that would actually determine the success or failure of the program. These were the people who believed as he did in a coordinated approach to conservation employing "all practical measures of control in accordance with the adaptability of the land." His early correspondence makes clear that he thought the coordinated farm plan would involve the cooperative efforts of

Out in the field the demonstration projects were popular. Requests by farmers and their Congressional representatives for Civilian Conservation Corps camps and projects further enhanced the reputation of the Service. But the Congressional authorization for spending would expire on June 15, 1935. The impending deadline, combined with Bennett's desire for a permanent organization, brought things to a head.

Agricultural groups argued that such work belonged in the Department of Agriculture (USDA). Conservation friends in Congress stood ready to introduce legislation including all the authorities needed for a soil conservation agency. The prospect of legislation forced President Roosevelt to deal with the situation. He summoned Bennett to the White House in March 1935.

The conversation (as recounted by Bennett) showed how successful he had been. The President thought Bennett's group must be doing a good job since they had become the object of desire for acquisition. It seemed to the President that the agricultural nature of the work merited a change to USDA. With the President's blessing, events moved quickly and smoothly. On March 25, 1935, he transferred SES from the Department of the Interior to USDA. After brief hearings Congress passed the Soil Conservation Act which the President signed on April 27, 1935. All who had taken part in the movement could take pride in the charge of the Service, which was "to provide permanently for the control and prevention of soil erosion and thereby to preserve natural resources."

Conservation Districts: Getting to the Roots

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by Douglas Helms

Also, Wilson recognized that the acceptance of conservation in the demonstration projects rested partly on the fact that equipment, labor, and the assistance of trained soil conservationists were available to farmers. This kind of assistance was not available outside the demonstration projects. Belief in soil conservation was insufficient to spread adoption of conservation measures outside the projects. Wilson's dilemma was how to make farmers feel more involved and in control, and how to provide the assistance, not just on demonstration projects, but nationwide to bring soil conservation to all the Nation's farmlands (Glick, 1990).

With the assistance of Philip M. Glick, a lawyer in the U. S. Department of Agriculture, Wilson's ideas were embodied in the "Standard State Soil Conservation District Law." The conservation district, as outlined in the standard law, was a new device in American federalism. It was classified as a "special district" because it had

that has developed over the years is for the districts to sign agreements with individual farmers and ranchers. Then trained soil conservationists from the Soil Conservation Service field offices worked individually with them on conservation problems.

A few examples can illustrate the work of districts. For instance, they helped apply conservation to the land by making specialized equipment available. Districts often purchased specialized equipment such as grass seeders, spriggers, or tree planters and rented them to farmers. Most farmers would need such equipment only a few times. During the last couple of decades, districts have promoted various reduced tillage systems which leave crop residues on the land surface and thus reduce soil erosion. The technique required specialized equipment or modifications in conventional planting equipment in order to plant through crop residues. Advocates of conservation tillage have tried to gain converts by